

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method in a computer system for flexibly altering software component behavior, the method comprising:

intercepting a service request made by a software component;

~~determining a~~ dynamically selecting at least one desired behavior from among several behaviors for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

dynamically controlling the software component such that the software component executes the desired behavior.

2. (Original) The method of claim 1 wherein:

intercepting a service request comprises intercepting a software supported system call.

3. (Original) The method of claim 2 wherein:

intercepting a software supported system call further comprises redirecting an entry in an interrupt vector table to alternative code.

4.(Original) The method of claim 1 wherein:

intercepting a service request comprises intercepting a hardware supported system call.

5. (Original) The method of claim 4 wherein:

intercepting a hardware supported system call further comprises redirecting an entry in an interrupt vector table to alternative code.

6. (Original) The method of claim 1 wherein:

intercepting a service request comprises intercepting a software library based subroutine call.

7. (Original) The method of claim 6 wherein:

intercepting a software library based subroutine call further comprises modifying at least one dynamically linked library.

8. (Original) The method of claim 1 wherein:

intercepting a service request comprises intercepting a subroutine based service.

9. (Original) The method of claim 8 wherein:

intercepting a subroutine based service further comprises redirecting the subroutine call instruction to alternative code.

10. (Original) The method of claim 8 wherein:

intercepting a subroutine based service further comprises patching machine language entry code of the subroutine.

11. (Original) The method of claim 1 wherein:

intercepting a service request comprises intercepting a service dispatch mechanism based on dynamic name resolution.

12. (Original) The method of claim 11 wherein:

intercepting a service dispatch mechanism based on dynamic name resolution further comprises modifying service lookup name space.

13. (Original) The method of claim 1 further wherein the desired behavior for the software component further comprises:

executing alternative code in response to intercepting the service request.

14. (Original) The method of claim 13 further comprising:

executing alternative code in addition to calling the service request.

15. (Original) The method of claim 13 wherein:

the alternative code performs an operation with a same purpose as that of the service request.

16. (Original) The method of claim 13 wherein:

the alternative code performs an operation with a different purpose from that of the service request.

17. (Original) The method of claim 1 further wherein the desired behavior for the software component further comprises:

preventing execution of the service request.

18. (Original) The method of claim 17 further comprising:

returning a value to the software component so as to simulate execution of the service request, without actually calling the service request.

19. (Original) The method of claim 1 further wherein the desired behavior for the software component further comprises:

preventing code that executes in response to interception of the service request from accessing at least some data.

20. (Original) The method of claim 19 further comprising:

allowing code that executes in response to interception of the service request to access alternative data, different from requested data.

21. (Currently Amended) The method of claim 20 wherein:

the alternative data comprises a copy of at least some requested data.

22. (Original) The method of claim 19 wherein:

code that executes in response to the interception of the service request comprises at least alternative code.

23. (Original) The method of claim 19 wherein:

code that executes in response to the interception of the service request comprises at least the service request.

24. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

passing alternative parameters to code that executes in response to interception of the service request.

25. (Original) The method of claim 24 further comprising:

creating the alternative parameters by modifying original parameters passed to the service request.

26. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

executing alternative code in response to interception of the service request.

27. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

executing alternative code in response to interception of the service request; and
executing the service request.

28. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

preventing execution of the service request.

29. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

simulating execution of the service request by returning a value to the software component.

30. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

preventing code that executes in response to interception of the service request from accessing at least some data.

31. (Original) The method of claim 30 further comprising:

allowing code that executes in response to interception of the service request to access alternative data, different from requested data.

32. (Original) The method of claim 31 wherein:

the alternative data comprises a copy of at least some data.

33. (Currently Amended) The method of claim 1 wherein dynamically controlling the software component further comprises:

returning an alternative value to the software component.

34. (Original) The method of claim 33 further comprising:

creating the alternative value by modifying a value returned by the service request.

35. (Original) The method of claim 1 further wherein the desired behavior for the software component further comprises:

preventing code that executes in response to interception of the service request from accessing a system resource.

36. (Original) The method of claim 35 wherein:

the system resource comprises a network.

37. (Original) The method of claim 35 wherein:

the system resource comprises storage media.

38. (Original) The method of claim 35 wherein:

the system resource comprises a file system.

39. (Original) The method of claim 35 wherein:

the system resource comprises a specific file.

40. (Original) The method of claim 35 wherein:

the system resource comprises configuration information.

41. (Original) The method of claim 40 wherein:

the configuration information comprises registry data.

42. (Currently Amended) The method of claim 1 wherein the at least one dynamically alterable condition dependant dependent rule that specifies the desired behavior for the software component is static.

43. (Currently Amended) The method of claim 1 wherein ~~dependant rules~~ the at least one dynamically alterable condition dependent rule that ~~specify~~ specifies the desired behavior for the software component ~~comprise~~ comprises a combination of static rules and dynamic rules.

44. (Currently Amended) The method of claim 43 further comprising:

modifying the at least one dynamically alterable condition dependent rule
~~dynamic rules~~ in response to behavior of the software component.

45. (Currently Amended) The method of claim 44 wherein modifying the at least one dynamically alterable condition dependent rule ~~dynamic rules~~ in response to the behavior of the software component further comprises:

~~responsive~~ responding to an attempt by the software component to access specific data, by creating a rule that specifies that the software component cannot access other data.

46. (Currently Amended) The method of claim 44 wherein modifying the at least one dynamically alterable condition dependent rule ~~dynamic rules~~ in response to the behavior of the software component further comprises:

~~responsive~~ responding to an attempt by the software component to access specific data, by creating a rule that specifies that the software component cannot perform certain functionality.

47. (Currently Amended) The method of claim 1 wherein the at least one dynamically alterable condition dependent rule ~~rules~~ that ~~specify~~ specifies the desired behavior for the software component ~~are~~ is based on at least one of the following criteria:

a user with which the software component is associated;

identity of the software component;

a time at which the software component is executing;
history of the software component;
a source of the software component;
data which the software component attempts to access;
functionality that software component attempts to execute; and
computer network resources that the software component attempts to
access.

48. (Canceled)

49. (Currently Amended) A computer system for flexibly altering software component behavior, the system comprising:

an interception module, for intercepting a service request made by a software component;

an altered states engine, for ~~determining~~ dynamically selecting at least one desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule, the altered states engine being coupled to the interception module;

~~a static rules database, for storing static condition dependant rules, the static rules database being coupled to the altered states engine;~~

~~a dynamic~~ at least one rules database, for storing ~~static~~ at least one dynamically alterable condition dependent rule ~~condition dependant rules~~, the dynamic rules database being coupled to the altered states engine; and

alternative code for executing in response to an intercepted service request made by the software component, for dynamically controlling the software component such that the software component executes the desired behavior, the alternative code being coupled to the altered states engine.

50. (Currently Amended) A computer system for flexibly altering software component behavior, the system comprising:

a software portion for intercepting a service request made by a software component;

a software portion for ~~determining a~~ dynamically selecting at least one desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

a software portion for dynamically controlling the software component such that the software component executes the desired behavior.

51. (Currently Amended) A computer system for flexibly altering software component behavior, the system comprising:

means for intercepting a service request made by a software component;

means for ~~determining a~~ dynamically selecting at least one desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

means for dynamically controlling the software component such that the software component executes the desired behavior.

52. (Currently Amended) A computer readable medium ~~program-product~~ containing instructions for controlling a processor to perform steps in a method for flexibly altering software component behavior, the ~~computer program-product~~ steps comprising:

~~program code for~~ intercepting a service request made by a software component;

~~program code for determining a~~ dynamically selecting at least one desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

~~program code for~~ dynamically controlling the software component such that the software component executes the desired behavior; ~~and~~

~~a computer readable medium on which the program codes are stored.~~

53. (Currently Amended) The ~~computer program-product~~ method of claim 52 wherein intercepting the service request further comprising comprises:

~~program code for~~ executing alternative code in response to ~~intercepting~~
interception of the service request.

54. (Currently Amended) The ~~computer program product~~ method of claim 52
wherein intercepting the service request further comprising comprises:

~~program code for~~ preventing code that executes in response to
interception of the service request from accessing at least some data.

55. (Currently Amended) The ~~computer program product~~ method of claim 54
further comprising:

~~program code for~~ allowing code that executes in response to interception
of the service request to access alternative data, different from requested data.

56. (Currently Amended) The ~~computer program product~~ method of claim 52
wherein intercepting the service request further comprising comprises:

~~program code for~~ passing alternative parameters to code that executes in
response to interception of the service request.

57. (Currently Amended) The ~~computer program product~~ method of claim 56
further comprising:

~~program code for~~ creating the alternative parameters by modifying original
parameters passed to the service request.

58. (Currently Amended) The ~~computer program product~~ method of claim 52 wherein intercepting the service request further ~~comprising~~ comprises:

~~program code for executing~~ alternative code in response to interception of the service request.

59. (Currently Amended) The ~~computer program product~~ method of claim 58 further comprising:

~~program code for executing~~ alternative code in response to interception of the service request; and

~~program code for executing~~ the service request.

60. (Currently Amended) The ~~computer program product~~ method of claim 52 wherein intercepting the service request further ~~comprising~~ comprises:

~~program code for preventing~~ execution of the service request.

61. (Currently Amended) The ~~computer program product~~ method of claim 52 wherein intercepting the service request further ~~comprising~~ comprises:

~~program code for simulating~~ execution of the service request by returning a value to the software component.

62. (Currently Amended) The ~~computer program product~~ method of claim 52 wherein intercepting the service request further ~~comprising~~ comprises:

~~program code for~~ returning an alternative value to the software component.

63. (Canceled)

64. (Currently Amended) A method in a computer system for flexibly altering software component behavior, the method comprising:

receiving, by an altered states engine, a service request made by a software component;

~~determining a~~ dynamically selecting at least one desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

dynamically controlling the software component such that the software component executes the desired behavior.

65. (Original) The method of claim 64 further wherein the desired behavior for the software component further comprises:

executing alternative code in response to receiving the service request.

66. (Original) The method of claim 65 further comprising:

executing alternative code in addition to calling the service request.

67. (Original) The method of claim 65 wherein:

the alternative code performs an operation with a same purpose as that of the service request.

68. (Original) The method of claim 65 wherein:

the alternative code performs an operation with a different purpose from that of the service request.

69. (Original) The method of claim 64 further wherein the desired behavior for the software component further comprises:

preventing execution of the service request.

70. (Original) The method of claim 69 further comprising:

returning a value to the software component so as to simulate execution of the service request, without actually calling the service request.

71. (Original) The method of claim 64 further wherein the desired behavior for the software component further comprises:

preventing code that executes in response to receipt of the service request from accessing at least some data.

72. (Original) The method of claim 71 further comprising:

allowing code that executes in response to receipt of the service request to access alternative data, different from requested data.

73. (Currently Amended) The method of claim 72 wherein:

the alternative data comprises a copy of at least some requested data.

74. (Original) The method of claim 71 wherein:

code that executes in response to the receipt of the service request comprises at least alternative code.

75. (Original) The method of claim 71 wherein:

code that executes in response to the receipt of the service request comprises at least the service request.

76. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

passing alternative parameters to code that executes in response to receipt of the service request.

77.(Original) The method of claim 76 further comprising:

creating the alternative parameters by modifying original parameters passed to the service request.

78. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

executing alternative code in response to receipt of the service request.

79. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

- executing alternative code in response to receipt of the service request;
- and
- executing the service request.

80. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

- preventing execution of the service request.

81. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

- simulating execution of the service request by returning a value to the software component.

82. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

- preventing code that executes in response to receipt of the service request from accessing at least some data.

83. (Original) The method of claim 82 further comprising:

allowing code that executes in response to receipt of the service request to access alternative data, different from requested data.

84. (Original) The method of claim 83 wherein:

the alternative data comprises a copy of at least some data.

85. (Currently Amended) The method of claim 64 wherein dynamically controlling the software component further comprises:

returning an alternative value to the software component.

86. (Original) The method of claim 85 further comprising:

creating the alternative value by modifying a value returned by the service request.

87. (Original) The method of claim 64 further wherein the desired behavior for the software component further comprises:

preventing code that executes in response to receipt of the service request from accessing a system resource.

88. (Original) The method of claim 87 wherein:

the system resource comprises a network.

89. (Original) The method of claim 87 wherein:

the system resource comprises storage media.

90. (Original) The method of claim 87 wherein:

the system resource comprises a file system.

91. (Original) The method of claim 87 wherein:

the system resource comprises a specific file.

92. (Original) The method of claim 87 wherein:

the system resource comprises configuration information.

93. (Original) The method of claim 92 wherein:

the configuration information comprises registry data.

94. (Currently Amended) The method of claim 64 wherein the at least one dynamically alterable condition dependant dependent rule that specifies the desired behavior for the software component is static.

95. (Currently Amended) The method of claim 64 wherein ~~dependant rules~~ the at least one dynamically alterable condition dependent rule that ~~specify~~ specifies the desired behavior for the software component ~~comprise~~ comprises a combination of static rules and dynamic rules.

96. (Currently Amended) The method of claim 95 further comprising:

modifying the ~~dynamic rules~~ at least one dynamically alterable condition dependent rule in response to behavior of the software component.

97. (Currently Amended) The method of claim 96 wherein modifying the ~~dynamic rules~~ at least one dynamically alterable condition dependent rule in response to the behavior of the software component further comprises:

~~responsive~~ responding to an attempt by the software component to access specific data[[,]] by creating a rule that specifies that the software component cannot access other data.

98. (Currently Amended) The method of claim 96 wherein modifying the ~~dynamic rules~~ at least one dynamically alterable condition dependent rule in response to the behavior of the software component further comprises:

~~responsive~~ responding to an attempt by the software component to access specific data[[,]] by creating a rule that specifies that the software component cannot perform certain functionality.

99. (Currently Amended) The method of claim 64 wherein the ~~rules~~ at least one dynamically alterable condition dependent rule that ~~specify~~ specifies the desired behavior for the software component are based on at least one of the following criteria:

a user with which the software component is associated;

identity of the software component;

a time at which the software component is executing;
history of the software component;
a source of the software component;
data which the software component attempts to access;
functionality that software component attempts to execute; and
computer network resources that the software component attempts to
access.

100. (Canceled)

101. (Currently Amended) A computer system for flexibly altering software component behavior, the system comprising:

an a receiving module, for receiving a service request made by a software component;

an altered states engine, for ~~determining~~dynamically selecting a desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule, the altered states engine being coupled to the receiving module;

~~a static rules database, for storing static condition dependant rules, the static rules database being coupled to the altered states engine;~~

~~a dynamic~~ at least one rules database, for storing ~~static condition-~~
~~dependant rules~~ at least one dynamically alterable condition dependent rule, the
~~dynamic~~ rules database being coupled to the altered states engine; and

alternative code for executing in response to a received service request
made by the software component, for dynamically controlling the software component
such that the software component executes the desired behavior, the alternative code
being coupled to the altered states engine.

102. (Currently Amended) A computer system for flexibly altering software
component behavior, the system comprising:

a software portion for receiving a service request made by a software
component;

a software portion for ~~determining~~dynamically selecting a desired behavior
for the software component, the desired behavior being specified for the software
component ~~and conditions~~ by at least one dynamically alterable condition dependent
rule; and

a software portion for dynamically controlling the software component
such that the software component executes the desired behavior.

103. (Currently Amended) A computer system for flexibly altering software
component behavior, the system comprising:

means for receiving a service request made by a software component;

means for dynamically selecting ~~determining~~ a desired behavior for the software component, the

desired behavior being specified for the software component ~~and~~ conditions by at least one dynamically alterable condition dependent rule; and

means for dynamically controlling the software component such that the software component executes the desired behavior.

104. (Currently Amended) A computer ~~program product~~ readable medium containing instructions for controlling a processor to perform steps in a method for flexibly altering software component behavior, the ~~computer program product~~ steps comprising:

~~program code for~~ receiving a service request made by a software component;

~~program code for determining~~ dynamically selecting a desired behavior for the software component, the desired behavior being specified for the software component ~~and conditions~~ by at least one dynamically alterable condition dependent rule; and

~~program code for~~ dynamically controlling the software component such that the software component executes the desired behavior; ~~and~~

~~a computer readable medium on which the program codes are stored.~~

105. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further ~~comprising~~ comprises:

~~program code for~~ executing alternative code in response to receiving the service request.

106. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further ~~comprising~~ comprises:

~~program code for~~ preventing code that executes in response to receipt of the service request from accessing at least some data.

107. (Currently Amended) The ~~computer program product~~ method of claim 106 further comprising:

~~program code for~~ allowing code that executes in response to receipt of the service request to access alternative data, different from requested data.

108. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further ~~comprising~~ comprises:

~~program code for~~ passing alternative parameters to code that executes in response to receipt of the service request.

109. (Currently Amended) The ~~computer program product~~ method of claim 108 further comprising:

~~program code for~~ creating the alternative parameters by modifying original parameters passed to the service request.

110. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further comprising comprises:

~~program code for~~ executing alternative code in response to receipt of the service request.

111. (Currently Amended) The ~~computer program product~~ method of claim 110 further comprising:

~~program code for~~ executing alternative code in response to receipt of the service request; and

~~program code for~~ executing the service request.

112. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further comprising comprises:

~~program code for~~ preventing execution of the service request.

113. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further ~~comprising~~comprises:

~~program code for~~ simulating execution of the service request by returning a value to the software component.

114. (Currently Amended) The ~~computer program product~~ method of claim 104 wherein receiving a service request made by the software component further ~~comprising~~comprises:

~~program code for~~ returning an alternative value to the software component.

115. (Canceled)